AMENDMENTS TO THE CLAIMS

Claims 1-7. (Canceled)

8. (New) A compressor comprising:

a compressing mechanism for compressing a fluid that contains lubricating oil;

a separation chamber having an interior space that is to have revolved therein fluid compressed by said compressing mechanism such that at least part of the lubricating oil contained in the fluid is separated from the fluid by centrifugal force produced by revolution of the fluid within said interior space;

an exhaust hole for exhausting from said interior space the fluid compressed by said compressing mechanism after having been revolved in said interior space; and

a feed hole for introducing into said interior space the fluid, compressed by said compressing mechanism, in a direction downwardly away from said exhaust hole.

9. (New) The compressor according to claim 8, further comprising:

a passage for supplying the fluid compressed by said compressing mechanism to said feed hole, wherein said feed hole is for introducing the fluid into said interior space in a direction downwardly away from said exhaust hole by virtue of said passage being directed in a direction downwardly away from said exhaust hole.

10. (New) The compressor according to claim 9, wherein

said passage is directed in a direction downwardly away from said exhaust hole such that a central axis of said passage forms an angle of at least 60° with a central axis of said interior space.

11. (New) The compressor according to claim 8, further comprising:

a discharge port for discharging from said compressing mechanism the fluid compressed by said compressing mechanism; and

a slender guide passage, communicating with said feed hole, for guiding the fluid compressed by said compressing mechanism from said discharge port to said feed hole.

12. (New) The compressor according to claim 8, further comprising:

an oil-storage chamber for storing the lubricating oil separated from the fluid revolved in said interior space; and

a communication passage provided between an upper part of said oil-storage chamber and said interior space, with said communication passage opening in a tangential direction of said interior space so that fluid flowing into said interior space, via said communication passage, from said upper part of said oil-storage chamber does not disturb revolution of the fluid, compressed by said compressing mechanism, in said interior space.

13. (New) The compressor according to claim 8, wherein

said separation chamber is free of any separation pipe extending into said interior space, and

said separation chamber has

(i) an inner peripheral surface defining said interior space such that said interior space includes a columnar space within which the fluid compressed by said compressing mechanism is to be revolved, said columnar space having a central axis in a first plane, and

(ii) a feed hole for introducing into said columnar space the fluid compressed by said compressing mechanism, said feed hole having a central axis in a second plane,

with a distance R being measured in a radial direction of said columnar space from said first plane to said inner peripheral surface, and with a distance L being measured in said radial direction from said first plane to a third plane that is tangent to said feed hole and parallel to and intermediate said first and second planes, such that a ratio L/R is greater than a

value of L/R at which an oil circulation rate when said separation chamber is free of any separation pipe extending into said interior space is equal to an oil circulation rate when a separation pipe extends into said interior space of said separation chamber.

14. (New) The compressor according to claim 13, wherein said ratio L/R is greater than 0.4.

15. (New) The compressor according to claim 8, wherein said separation chamber has

(i) an inner peripheral surface defining said interior space such that said interior space includes a columnar space within which the fluid compressed by said compressing mechanism is to be revolved, and

(ii) an exhaust hole for exhausting from said columnar space the fluid compressed by said compressing maechanism after having been revolved in said columnar space, said exhaust hole being at one end of said columnar space and having a diameter smaller than a diameter of said columnar space at said one end.

16. (New) The compressor according to claim 15, wherein said exhaust hole has a diameter smaller than a diameter of said columnar space at said one end by virtue of a reducing portion at said one end, said reducing portion interconnecting an outer circumference of said exhaust hole to an outer circumference of said columnar space.